

TIU Implementation Guide

Appendix G: Inheritance Examples for Business Rules and TIU Document Parameters

Inheritance for Business Rules

Business Rules may have one or both of the following hierarchical attributes:

- Document Definition
- User Class

Sometimes a rule contains a User role but no User Class, and, therefore, only has one hierarchical attribute.

Business Rules are inherited along both of these attribute lines.

Inheritance along the Document Definition line

Rules defined for a given Document Definition are inherited by all Document Definitions below the given one. For example, the following rule is inherited by all Titles since all Titles descend from CLINICAL DOCUMENTS:

A COMPLETED (CLASS) CLINICAL DOCUMENT may be VIEWED by a USER

In other words, all completed Titles may be viewed by a User.

Overriding Business Rule inheritance:

This Document Definition inheritance can be overridden by setting rules at lower levels of the Document Definition hierarchy.

Example 1:

Rule #1 below is overridden by rule #2, because Document Class NURSE NOTE is under Class CLINICAL DOCUMENTS in the Document Definition hierarchy and both rules have the same Status and Action.

1. An UNTRANSCRIBED (CLASS) CLINICAL DOCUMENT may be ENTERED by a USER
2. An UNTRANSCRIBED (DOCUMENT CLASS) NURSE NOTE may be ENTERED by a NURSE


Example 2:

Rule #1 below is overridden by rule #2 because Document Class NURSE NOTE is under Class CLINICAL DOCUMENTS and both rules have the same Status and Action.

1. An UNSIGNED (CLASS) CLINICAL DOCUMENT may be VIEWED by an AUTHOR/DICTATOR
2. An UNSIGNED (DOCUMENT CLASS) NURSE NOTE may be VIEWED by a CHIEF, MIS

If both of these rules exist, and an Author/Dictator should be able to view an Unsigned (Document Class) NURSE NOTE, then the following rule must be added:

An UNSIGNED (DOCUMENT CLASS) NURSE NOTE may be VIEWED by an AUTHOR/DICTATOR

 **NOTE:** Document Definition override permits Clinical Coordinators to modify the behavior of documents for which they are responsible (e.g., NURSE NOTE), without affecting the behavior of other documents.

Inheritance along the User Class line

Rules defined for a given User Class are inherited by all User Classes below the given one. For example, the following rule applies to all users since all User Classes descend from the User Class USER.

A COMPLETED (CLASS) CLINICAL DOCUMENT may be VIEWED by a USER

Putting the two lines of inheritance together, this rule (if it has not been overridden) means that all completed Titles may be viewed by all users.

Although rules are INHERITED through User Class as well as through the Document Definition hierarchy, inheritance is *not* overridden by the User Class hierarchy.


In fact, if two rules have the same status, the same action, and the same Document Definition, but one rule has a User Class that descends from the User Class of the other rule, then the rule for the more explicit User Class is redundant. It does NOT override the more general rule.

For example, rule #1 below is *not* overridden by rule #2.

1. An UNSIGNED (DOCUMENT CLASS) NURSE NOTE may be VIEWED by a
MEDICAL INFORMATION SECTION
2. An UNSIGNED (DOCUMENT CLASS) NURSE NOTE may be VIEWED by a CHIEF,
MIS

Instead, the second rule is redundant in the presence of the first rule. It could be eliminated with no effect.

If a site has only rule #2 and wishes to expand those that can view NURSE NOTE from Chief, MIS to the Medical Information Section, they could simply add rule #1. However, it would be more efficient (fewer rules) to simply change the class CHIEF, MIS to MEDICAL INFORMATION SECTION in the second rule.

 **NOTE:** The reason there is no inheritance override for User Classes is that the responsibility for User Classes is not divided up the way it is for Document Definitions. For example, the Nursing Clinical Coordinator is responsible for Nursing Note behavior for ALL User Classes, but is *not* responsible for all TIU documents, only for Nurse Notes.

Inheritance and Addenda

Business Rules cannot be set for Addenda, since Addenda inherit their behavior from their parents.

TIU Document Parameter Inheritance

TIU Document Parameters are set with the option *Document Parameter Edit*, which is on the TIU Maintenance Menu:

```
TIU Maintenance Menu [TIU IRM MAINTENANCE MENU]
  TIU Parameters Menu [TIU SET-UP MENU]
    Document Parameter Edit [TIU DOCUMENT PARAMETER EDIT]
```

At present, document parameters are *not* independently heritable.

Therefore, if one of these parameters is set for a given Document Definition, then *all* parameters set at higher Document Definition levels are ignored for that Document Definition. For example, if you set one of these parameters for the Title POSTOPERATIVE NOTE, then any other parameters which should hold for POSTOPERATIVE NOTE must also be explicitly set at that level; they are *not* inherited from higher levels.

Example:

Suppose you want residents to require cosignature, but only for the Title POSTOPERATIVE NOTE. To accomplish this, use the option *Document Parameter Edit*, select Title POSTOPERATIVE NOTE, and set the parameter USERS REQUIRING COSIGNATURE to User Class RESIDENT PHYSICIAN. Then residents will require cosignature for the Title POSTOPERATIVE NOTE.

We show this process in several steps in the screen captures on the next page. We first set the parameter USERS REQUIRING COSIGNATURE for Title POSTOPERATIVE NOTE, leaving other parameters alone. Then we look up parameter values for PROGRESS NOTES. Last, we set previously inherited parameter values for POSTOPERATIVE NOTE:

Example: Setting Cosignature Requirement

```
Select TIU Parameters Menu Option: 3 Document Parameter Edit
First edit Institution-wide parameters:

Select DOCUMENT DEFINITION: POSTOPERATIVE NOTE TITLE
Are you adding 'POSTOPERATIVE NOTE' as
a new TIU DOCUMENT PARAMETERS (the 12TH)? No// Y (Yes)
DOCUMENT DEFINITION: POSTOPERATIVE NOTE// <Enter>
REQUIRE RELEASE: <Enter>
REQUIRE MAS VERIFICATION: <Enter>
REQUIRE AUTHOR TO SIGN: <Enter>

ROUTINE PRINT EVENT(S): <Enter>
STAT PRINT EVENT(S): <Enter>
MANUAL PRINT AFTER ENTRY: <Enter>
ALLOW CHART PRINT OUTSIDE MAS: <Enter>
ALLOW >1 RECORDS PER VISIT: <Enter>
ENABLE IRT INTERFACE: <Enter>
SUPPRESS DX/CPT ON NEW VISIT: <Enter>
EDITOR SET-UP CODE: <Enter>

If document is to be uploaded, specify Filing Alert Recipients:

Select FILING ERROR ALERT RECIPIENTS:

Now enter the USER CLASSES for which cosignature will be required:

Select USERS REQUIRING COSIGNATURE: RESIDENT PHYSICIAN
Are you adding 'RESIDENT PHYSICIAN' as a new USERS REQUIRING
COSIGNATURE (the 1ST for this TIU DOCUMENT PARAMETERS)?
No// Y (Yes)
Select USERS REQUIRING COSIGNATURE:

Now enter the DIVISIONAL parameters:

Select DIVISION:
```

This accomplishes the goal for residents for POSTOPERATIVE NOTES. But, in creating this new entry, we have overridden ALL previously inherited document parameter values for POSTOPERATIVE NOTES.

If we want POSTOPERATIVE NOTE to function like other notes (apart from requiring cosignature for residents), we'll need to enter the parameter values for POSTOPERATIVE NOTE that it previously inherited. Use the option *Document Parameter Edit* and select Class PROGRESS NOTES to see what values PROGRESS NOTES has on your system. Don't change the values; just take the defaults so you can look at them. Your values may be different from ours.

Example: Re-entering parameter values

```
Select TIU Parameters Menu Option:  Document Parameter Edit
First edit Institution-wide parameters:

Select DOCUMENT DEFINITION: PROGRESS NOTES      TITLE
...OK? Yes// <Enter>  (Yes)

DOCUMENT DEFINITION: PROGRESS NOTES// <Enter>
REQUIRE RELEASE: NO NO
REQUIRE MAS VERIFICATION: NO NO
REQUIRE AUTHOR TO SIGN: Y YES
ROUTINE PRINT EVENT(S): <Enter>
STAT PRINT EVENT(S): <Enter>
MANUAL PRINT AFTER ENTRY: YES// <Enter>
ALLOW CHART PRINT OUTSIDE MAS: YES// <Enter>
ALLOW >1 RECORDS PER VISIT: YES// <Enter>
ENABLE IRT INTERFACE: <Enter>
SUPPRESS DX/CPT ON NEW VISIT: <Enter>
EDITOR SET-UP CODE: <Enter>

If document is to be uploaded, specify Filing Alert Recipients:

Select FILING ERROR ALERT RECIPIENTS: CLERK,F.W.D. // <Enter>

Now enter the USER CLASSES for which cosignature will be required:

Select USERS REQUIRING COSIGNATURE: STUDENT// <Enter>

Now enter the DIVISIONAL parameters: <Enter>

Select DIVISION: SALT LAKE CITY// <Enter>
  CHART COPY PRINTER: LASER//<Enter>
  STAT CHART COPY PRINTER: <Enter>
Select DIVISION: <Enter>
```

NOTE: If TIU Document Parameters are defined for the Document Class parent of the Title POSTOPERATIVE NOTES, look up and fill in those values instead of the values for PROGRESS NOTES.

Example, cont'd

Now edit parameters for POSTOPERATIVE NOTE again, and fill in the values *your site* is using for PROGRESS NOTES:

```
Select TIU Parameters Menu Option:  Document Parameter Edit
First edit Institution-wide parameters:

Select DOCUMENT DEFINITION:  POSTOPERATIVE NOTE          TITLE
                             ...OK? Yes// <Enter>   (Yes)

DOCUMENT DEFINITION: POSTOPERATIVE NOTE// <Enter>
REQUIRE RELEASE: NO NO
REQUIRE MAS VERIFICATION: NO NO
REQUIRE AUTHOR TO SIGN: Y YES
ROUTINE PRINT EVENT(S): <Enter>
STAT PRINT EVENT(S): <Enter>
MANUAL PRINT AFTER ENTRY: Y YES
ALLOW CHART PRINT OUTSIDE MAS: Y YES
ALLOW >1 RECORDS PER VISIT: Y YES
ENABLE IRT INTERFACE: <Enter>
SUPPRESS DX/CPT ON NEW VISIT: <Enter>
EDITOR SET-UP CODE: <Enter>

If document is to be uploaded, specify Filing Alert Recipients:

Select FILING ERROR ALERT RECIPIENTS:  CLERK,F.W.D.          FWDC
MEDICAL RECORD TECHNICIAN
Are you adding 'CLERK,F.W.D.' as a new FILING ERROR ALERT RECIPIENTS
(the 1ST for this TIU DOCUMENT PARAMETERS)? No// Y (Yes)
Select FILING ERROR ALERT RECIPIENTS:

Now enter the USER CLASSES for which cosignature will be required:


Select USERS REQUIRING COSIGNATURE: RESIDENT PHYSICIAN
// STUDENT
Are you adding 'STUDENT' as a new USERS REQUIRING COSIGNATURE (the 2ND
for this TIU DOCUMENT PARAMETERS)? No// Y (Yes)
Select USERS REQUIRING COSIGNATURE: <Enter>

Now enter the DIVISIONAL parameters: <Enter>

Select DIVISION: SALT LAKE CITY          660
Are you adding 'SALT LAKE CITY' as a new DIVISION (the 1ST for this
TIU DOCUMENT PARAMETERS)? No// Y (Yes)
CHART COPY PRINTER:  LASER          PRINTER ROOM LN11 12 PITCH
_LTA36:
STAT CHART COPY PRINTER:

Select DIVISION:
```

Notice that we added User Class STUDENT to the USERS REQUIRING COSIGNATURE multiple as well as filling in other parameters.

 **NOTE:** We split this edit into two separate steps for clarity, but it is more efficient to edit all parameters for POSTOPERATIVE NOTE in a single step, assuming you know what values it previously inherited.

If, in the future, TIU Document Parameters are made independently heritable, then the extra parameters you add now will become redundant. You shouldn't have to remove them.

Stub Document Parameters

It follows from what we said earlier about TIU Document Parameter inheritance that stub parameters are not harmless.

Example: Suppose you enter:

```
Select TIU Parameters Menu Option:  Document Parameter Edit
First edit Institution-wide parameters:

Select DOCUMENT DEFINITION:  POSTOPERATIVE NOTE          TITLE
                             ...OK? Yes// <Enter>   (Yes)

DOCUMENT DEFINITION: POSTOPERATIVE NOTE//<Enter>
```

Now, suppose you delete all values for POSTOPERATIVE NOTE, (or if POSTOPERATIVE NOTE is new, suppose you don't enter any values). Then, since POSTOPERATIVE NOTE still exists as a TIU Document Parameters entry, it overrides any values which it might have inherited from a higher document definition. To avoid this override, you must delete the Document Parameter entry POSTOPERATIVE NOTE itself, not just all of its values.